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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/458,019	06/01/1995	ERIC A. JOHNSON	2502495-991100	2660
29180	7590	02/14/2006		
BELL, BOYD, & LLOYD LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			EXAMINER LILLING, HERBERT J	
			ART UNIT	PAPER NUMBER

1651

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/458,019

Applicant(s)

JOHNSON ET AL.

Examiner

HERBERT J. LILLING

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: ATTACHMENT Pg 35 07/399,453

Art Unit: 1651

1. Receipt is acknowledged of the response filed January 23, 2006.
2. Claims 25-34 remain pending in this application.
3. The response has been deemed not to be persuasive as required by the PTO Claims 25-34 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of U.S. Patent No 5,182,208:

Although the conflicting claims are not identical, they are not patentably distinct from each other because

1. A process for the production of a yeast having an enhanced astaxanthin content, comprising culturing a microorganism of genus *Phaffia* in a nutrient medium containing at least one of (i) an antibiotic selected from the group consisting of antimycin, tunicamycin, and nystatin, and (ii) mevalonic acid lactone.

5. A process as in claim 1, employing as said yeast *P. rhodozyma* ATCC 24230 to ATCC 24202.

6. A process as in claim 1, wherein the astaxanthin in harvested yeast is 1000 ppm or more based on dry weight of yeast cells.

7. A process for the production of a yeast having an enhanced astaxanthin content, comprising subjecting a microorganism of genus *Phaffia* to growth in the presence of a main respiratory pathway inhibitor under an influence which triggers a secondary respiratory pathway, wherein the main respiratory pathway inhibitor is a member selected from the group consisting of antimycin A, thenoyltrifluoroacetone, cyanide, axide and hydrogen peroxide.

12. A process for the production of a yeast having an enhanced astaxanthin content, comprising culturing a microorganism of genus *Phaffia* one or more times in a nutrient medium containing at least one of (i) an antibiotic selected from the group consisting of antimycin, tunicamycin, and nystatin, and (ii) mevalonic acid lactone, cultivating surviving microorganisms exhibiting enhanced pigmentation, harvesting the cultivated yeast, and extracting the astaxanthin.

Art Unit: 1651

14. A process for the **production of a yeast having an enhanced astaxanthin content**, comprising culturing a microorganism of genus *Phaffia* in a nutrient medium containing an inhibitor of electron transport which blocks the transfer of electrons from cytochrome b to c in a yeast of genus *Phaffia*.

16. A process as in claim 14, employing as said yeast *Phaffia rhodozyma* ATCC 24230 or ATCC 24202.

17. A process as in claim 14, **wherein the astaxanthin in harvested yeast is 1000 ppm or more based on dry weight of yeast cells.**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

There was no restriction based on the instantly claimed product claims in view of the restriction in the above patent as noted on page 35 attached.

4. **No claim is allowed.**

5. Applicant is entitled to argue the rejection, go to the Board or to submit the TD.

Art Unit: 1651

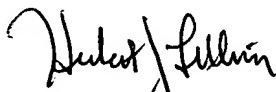
6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Examiner Lilling whose telephone number is 571-272-0918** and **Fax Number** is (703) 872-9306 or SPE Michael Wityshyn whose telephone number is 571-272-0926. Examiner can be reached Monday-Thursday from about 5:30 A.M. to about 3:00 P.M. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H.J.Lilling: HJL
(571) 272-0918
Art Unit **1651**
February 06, 2006



Dr. Herbert J. Lilling
Primary Examiner
Group 1600 Art Unit 1651